

We claim

1. A process for vulcanizing rubber or latex by adding a mixture M comprising a component a) made from
 - a1) from 20 to 96% by weight of sulfur,
 - a2) from 4 to 80% by weight of a complexer,
 - and, where appropriate, comprising other additives b), to the rubber or latex and then carrying out the vulcanization, which comprises using a component a) whose average primary particle size is in the range from 0.05 to 20 μm .
2. A process as claimed in claim 1, wherein the complexer a2) comprises a polymeric complexer compound.
3. A process as claimed in claim 1 or 2, wherein the polymeric complexer a2) is a ligninsulfonate, a β -naphthalenesulfonic acid-formaldehyde condensate, or a mixture of ligninsulfonate and β -naphthalenesulfonic acid-formaldehyde condensate.
4. A process as claimed in any of claims 1 to 3, wherein the polymeric complexer a2) is an alkali metal ligninsulfonate and/or an alkaline earth metal ligninsulfonate.
5. A process as claimed in any of claims 1 to 4, wherein the mixture M is free-flowing with a median particle size of from 50 μm to 4 mm.
6. A process as claimed in any of claims 1 to 5, wherein the mixture M is a liquid dispersion.
7. The use of a mixture M - as defined in any of claims 1 to 6 - as agent for vulcanizing rubber or latex.
8. A vulcanized rubber or latex obtainable by the process as claimed in any of claims 1 to 6.